Channel Master®

CM-5016
CM-5018
CM-5020

USER GUIDE

Masterpiece

ANTENNA SERIES

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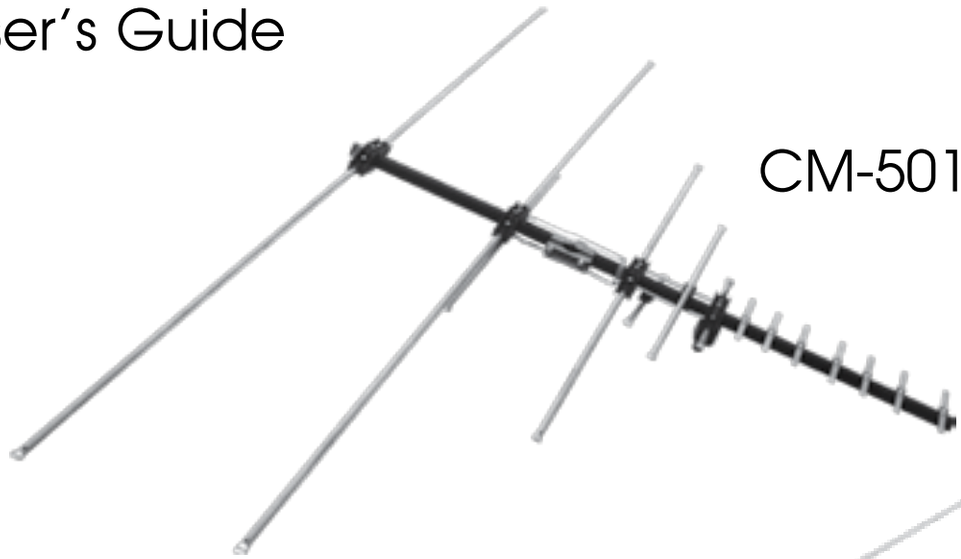
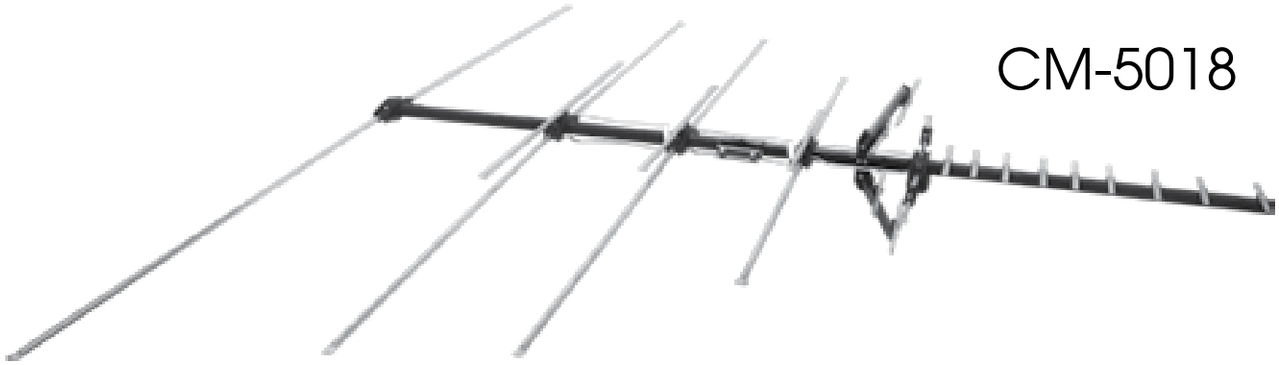
CM-5016 HD/VHF/UHF 15 Element Antenna
CM-5018 HD/VHF/UHF 40 Element Antenna
CM-5020 HD/VHF/UHF 60 Element Antenna

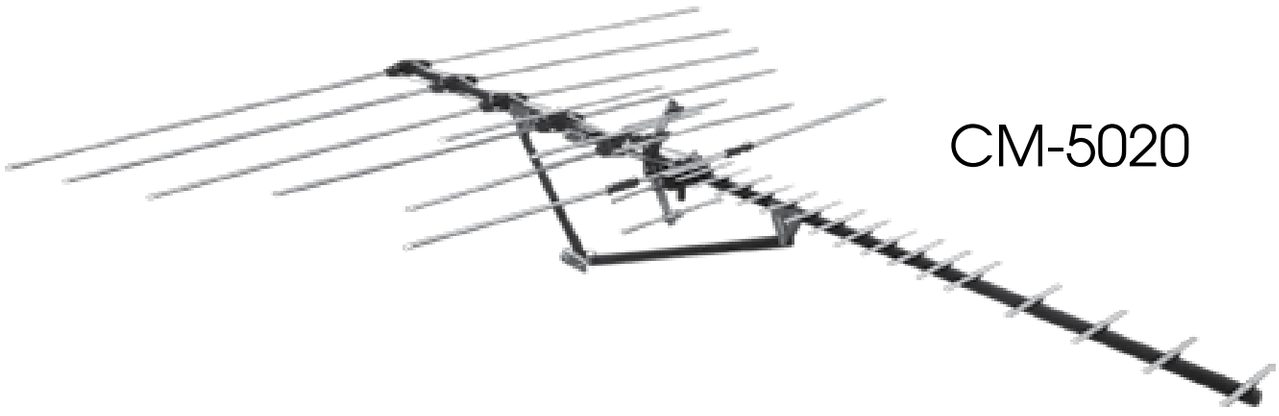
User's Guide



CM-5016



CM-5018



CM-5020

Warning and Safety Information

Please read this user's manual before operating this product.
The information contained in this document is subject to change without notice. Features or specifications may be different depending on the type of product model purchased.

Safe Use of This Product
Carefully follow the warnings and safety notices presented within this manual. Please pay special attention to the following indications of potentially hazardous situations:

Warning:
Indicates a hazardous situation, which, if not avoided, could result in serious injury.

Caution:
Indicates a situation, which, if not avoided, could damage this product or other devices.

Note:
Indicates additional user information to make the user aware of possible problems and to help the user understand, use and maintain the product.

Product Overview

All Channel Master - Masterpiece Antennas are future-proof and legacy protected. So you can have the confidence that no matter what the installation requirement, you have it all covered in one quality antenna.

Because time is money, all Masterpiece Antennas are engineered to be easy to install. Simply open the box, click open and you're ready to go! We know how important time is to the installer. The entire Channel Master Masterpiece Antenna is engineered so that every bit just `clicks' into place, U-bolts are fitted on most models.
No fiddling, dropping or scratching around - it's all there on the antenna ready to go. This attention to detail is also seen in the antenna ends and edges; every piece is crimped and machined to ensure a safe, trouble-free installation. Every antenna is made of the finest components to exceed even the most extreme conditions. That means peace of mind for you for years to come.

Package Contents and Accessories

Thank you for purchasing the Channel Master CM-5016, CM-5018 or CM-5020 Masterpiece Antenna.

CM-5016 Antenna, User Guide

CM-5018 Antenna, User Guide

CM-5020 Antenna, User Guide

DANGER

WATCH FOR WIRES!

You can be KILLED if this antenna comes near electric power lines!

READ INSTRUCTIONS

Warning

Installation of this product near power lines is dangerous. For your safety, follow the installation directions.

Before you start installation, let us warn you of the danger of letting any part of your antenna system touch electrical power lines - - you may be killed.

It happens more often than you realize! Someone falls off of a roof or gets the shock of their life.

Unfortunately, a good antenna site is often near electrical power lines. If any metal antenna part touches a power line, it completes an electrical path through the installer (that's you!) to the ground.

Follow These Procedures for the Safest Installation

1. Perform as much antenna assembly on the ground as possible.
2. Watch out for overhead power lines. Check the distance to the power lines before you start installing. WE RECOMMEND YOU STAY A MINIMUM OF TWICE THE MAXIMUM LENGTH OF THE ANTENNA ASSEMBLY AWAY FROM ALL POWER LINES.
3. Do not use a metal ladder.

4. Remember, even the slightest touch of an antenna to a power line can cause a fatal shock.
5. Do NOT try to do the job on a windy day.
6. Have a friend as a spotter when you're on the roof. They can see things you can't.
7. If you start to drop an antenna, move away from it and let it fall.
8. If any part of the antenna should come into contact with a power line CALL YOUR LOCAL POWER COMPANY! DO NOT TRY TO REMOVE IT YOURSELF! They will remove it safely.
9. Mast, lead-in, and metal guy wires are excellent conductors of electrical current - - keep them away from power lines too.
10. Be sure your family and friends understand the danger of touching an overhead power line. Tell them never to try to remove any object in contact with a power line (CB, TV antenna, or anything else).
11. Make sure that the antenna mast assembly is properly grounded.

If an Accident Should Occur with Power Lines

Recommended by the Nation Consumer Product Safety Council.

- Do NOT grab hold of a person in contact with the antenna and power line.
- You will be in danger and subject to shocking and severe danger! Use a DRY board, stick, or rope to push or pull the antenna away from the victim.
- If the victim has stopped breathing, and it is safe to approach, administer CPR and stay with that person. Have someone call for medical help.

Important Guidelines for Installing Antennas

If you're not sure about careful, safe installation – do NOT try to do it yourself. Call for professional help (look up Television Antenna Systems in your area or call your local power company).

Measure the maximum length of the antenna and mast assembly and then stay at least twice that distance away from power lines.
(If you don't have at least this much space, hire a professional to do the installation.)

When using a mast for support, use only 1¼ inch diameter or larger antenna mast sections. Lengths over 10 feet should be guyed at least each 10 foot section.

Site Selection: Where to Install Your Antenna

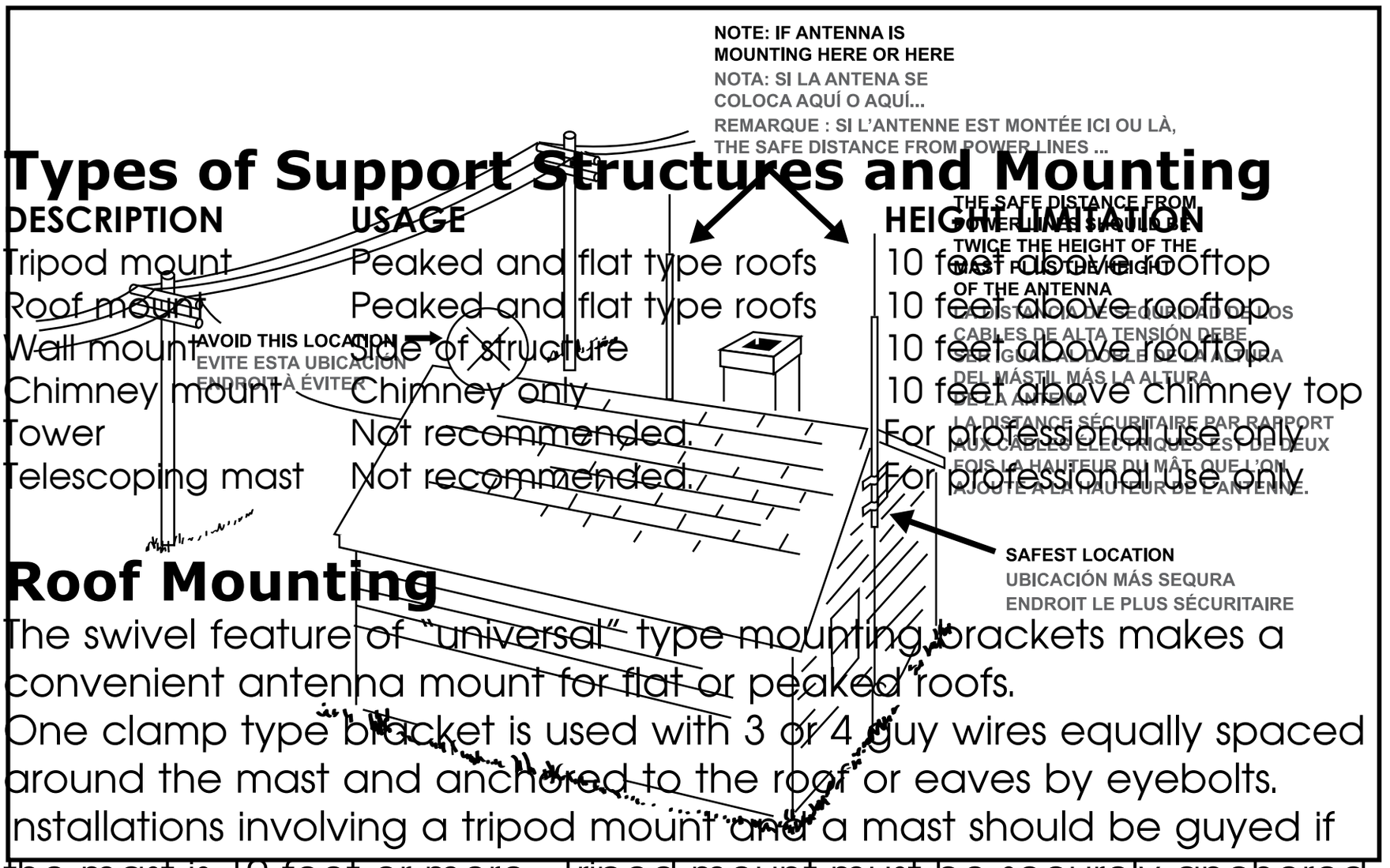
Before attempting to install your antenna, think where you can best place your antenna for safety and performance.

To determine a safe distance from wires, power lines, and trees:

- Measure the height of your antenna.
- Add the antenna length to the length of your tower or mast.
- Double this total for the minimum recommended safe distance.
- If you are unable to maintain this safe distance, STOP!
  GET PROFESSIONAL HELP.

Most antennas are supported by pipe masts attached to the chimney, roof, or side of the house. Normally, the higher the antenna

is above ground, the better it performs. A good general rule is to install your vertical antenna about 5 to 10 feet above the roof line and as far away as possible from power line and obstructions.


NOTE: IF ANTENNA IS MOUNTING HERE OR HERE
NOTA: SI LA ANTENA SE COLOCA AQUÍ O AQUÍ...
REMARQUE : SI L'ANTENNE EST MONTÉE ICI OU LÀ,
THE SAFE DISTANCE FROM POWER LINES ...
THE SAFE DISTANCE FROM POWER LINES SHOULD BE TWICE THE HEIGHT OF THE MAST PLUS THE HEIGHT OF THE ANTENNA
LA DISTANCIA DE SEGURIDAD DE LOS CABLES DE ALTA TENSIÓN DEBE SER IGUAL AL DOBLE DE LA ALTURA DEL MÁSTIL MÁS LA ALTURA DE LA ANTENA
LA DISTANCE SÉCURITAIRE PAR RAPPORT AUX CÂBLES ÉLECTRIQUES EST DE DEUX FOIS LA HAUTEUR DU MÂT, QUE L'ON AJOUTE À LA HAUTEUR DE L'ANTENNE.
AVOID THIS LOCATION
EVITE ESTA UBICACIÓN
ENDROIT À ÉVITER
Side of structure
SAFEST LOCATION
UBICACIÓN MÁS SEQURA
ENDROIT LE PLUS SÉCURITAIRE

Types of Support Structures and Mounting

DESCRIPTION	USAGE	HEIGHT LIMITATION
Tripod mount	Peaked and flat type roofs	10 feet above rooftop
Roof mount	Peaked and flat type roofs	10 feet above rooftop
Wall mount	Side of structure	10 feet above rooftop
Chimney mount	Chimney only	10 feet above chimney top
Tower	Not recommended.	For professional use only
Telescoping mast	Not recommended.	For professional use only

Roof Mounting

The swivel feature of "universal" type mounting brackets makes a convenient antenna mount for flat or peaked roofs.

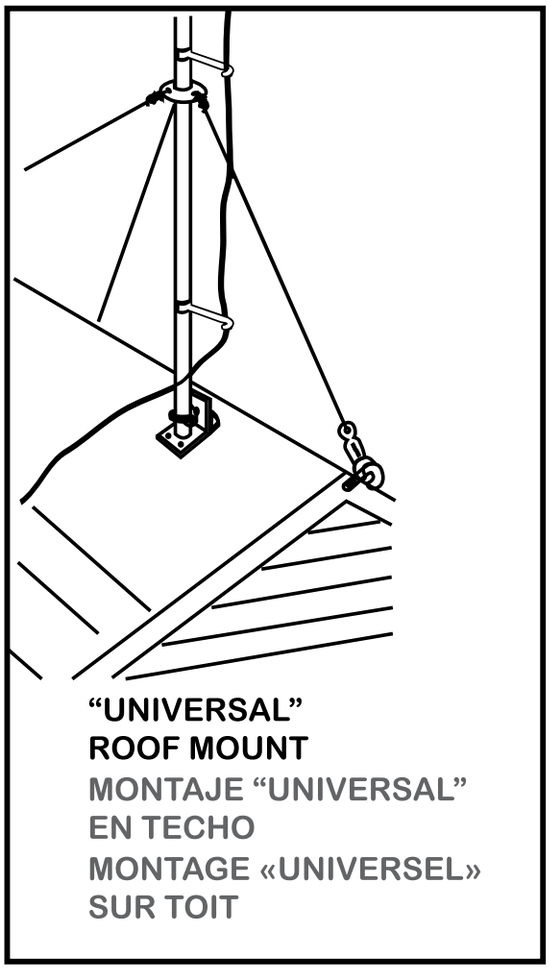
One clamp type bracket is used with 3 or 4 guy wires equally spaced around the mast and anchored to the roof or eaves by eyebolts.

Installations involving a tripod mount and a mast should be guyed if the mast is 10 feet or more. Tripod mount must be securely anchored to the roof as should the guy wires. Apply roofing compound around the base of the bracket, screws and eyebolts for moisture sealing.

Side of House Mounting

Where roof overhang is not excessive, the side of the house provides

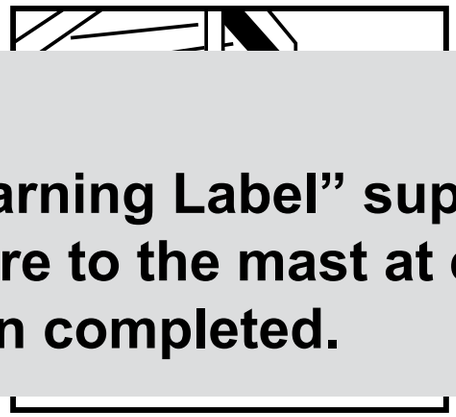
a convenient mounting location. Position the brackets over a stud if possible, one above the other, and spaced two or three feet apart. For metal siding, first mark mounting holes, then drill pilot holes through the siding to accept mounting screws.



"UNIVERSAL" ROOF MOUNT
MONTAJE "UNIVERSAL" EN TECHO
MONTAGE «UNIVERSEL» SUR TOIT

Chimney Mounting

The chimney is often an easy and convenient mounting location. Note that the chimney must be strong enough to support the antenna in high winds. Do not use a chimney that has loose bricks or mortar. A good chimney mount makes use of a 5 or 10 foot ¼ inch diameter steel mast, and a heavy-duty two strap clamp-type bracket. Install the upper bracket below the top course of bricks, and the lower bracket two or three feet below the upper bracket. For maximum strength, space the brackets as much as possible.

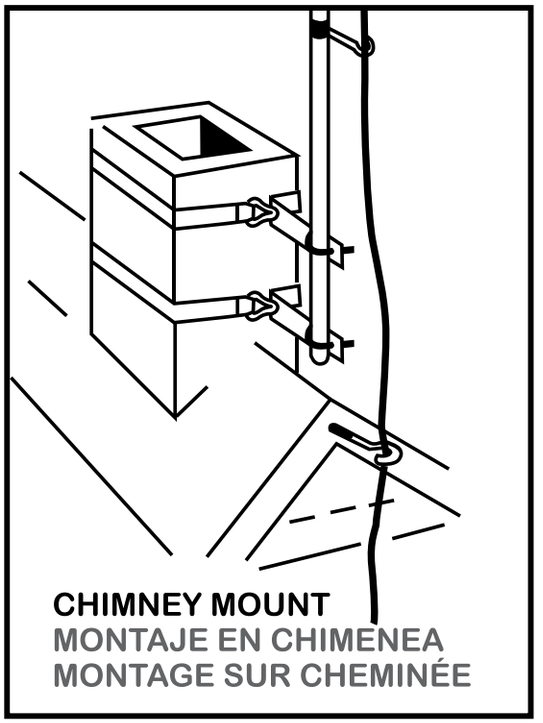


Note:

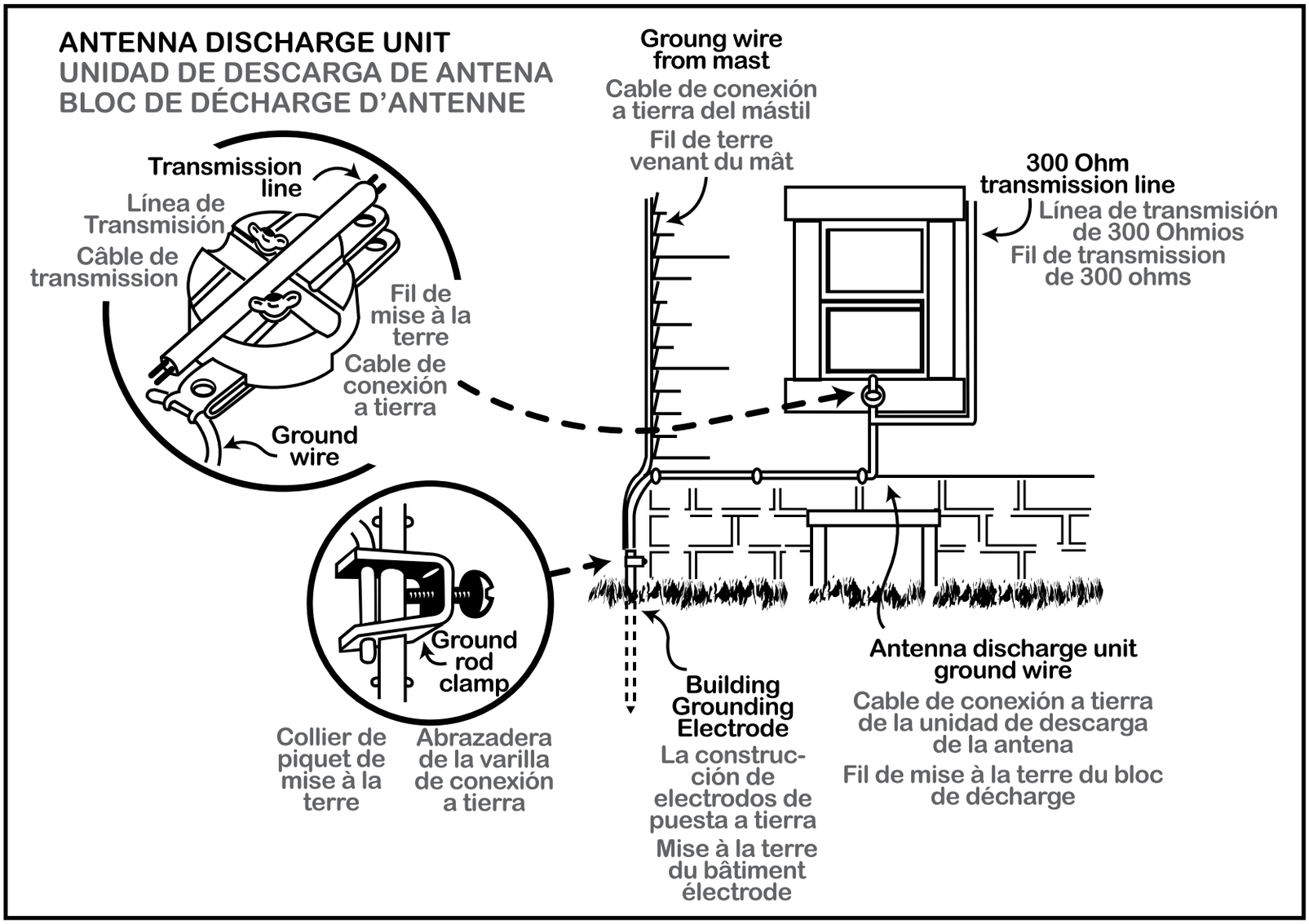
Mount the extra "Warning Label" suppli
the antenna hardware to the mast at eye
installation has been completed.

How to Install Your Antenna

1. Assemble your new antenna on the ground in accordance with separate assembly instructions supplied with it.
2. On the ground, clamp antenna to mast, pull enough transmission line to connect to antenna.
3. Install selected mounting bracket.
4. If you are going to use guy wire installation instead of a mounting bracket:
   - **a.** Install-guy anchor bolts
   - **b.** Estimate length of guy wire and cut
   - **c.** Attach to mast using guy ring
5. Mount the extra included "Warning Label" supplied in the hardware bag on the antenna mast at eye level after installation has been completed.



CHIMNEY MOUNT
MONTAJE EN CHIMENEA
MONTAGE SUR CHEMINÉE


ANTENNA DISCHARGE UNIT
UNIDAD DE DESCARGA DE ANTENA
BLOC DE DÉCHARGE D'ANTENNE
Transmission line
Línea de Transmisión
Câble de transmission
Fil de mise à la terre
Cable de conexión a tierra
Ground wire
Groung wire from mast
Cable de conexión a tierra del mástil
Fil de terre venant du mât
300 Ohm transmission line
Línea de transmisión de 300 Ohmios
Fil de transmission de 300 ohms
Ground rod clamp
Collier de piquet de mise à la terre
Abrazadera de la varilla de conexión a tierra
Building Grounding Electrode
La construc-ción de electrodos de puesta a tierra
Mise à la terre du bâtiment électrode
Antenna discharge unit ground wire
Cable de conexión a tierra de la unidad de descarga de la antena
Fil de mise à la terre du bloc de décharge

Antenna Removal

Removal of the antenna should be exactly the reverse of the installation instructions. Please, for your own safety, follow the instructions for installing the antenna starting with the last step first. This is the safest method.

Lightning Protection

To protect your house and your TV (FM, CB, etc.) installation, the mast of your antenna system must be properly grounded.

Antenna masts must be grounded to the same ground used for the building's electrical system. This will ensure that all exposed metal parts are at the same electrical potential. The recommended method is to run a #10 AWG or larger copper wire in as straight a line as possible to the building grounding electrode system and must be connected to the building ground using a UL listed ground clamp. Also, an antenna discharge unit (sometimes referred to as a lightning arrester) should be connected to the antenna lead-in at the place where it enters the home. (Follow the instructions provided with the static discharge unit.)

Installation Instructions:

1.1 Unfold VHF elements starting from back of antenna working your way to the front by rotating outward and click into place. See **Fig. 1.**

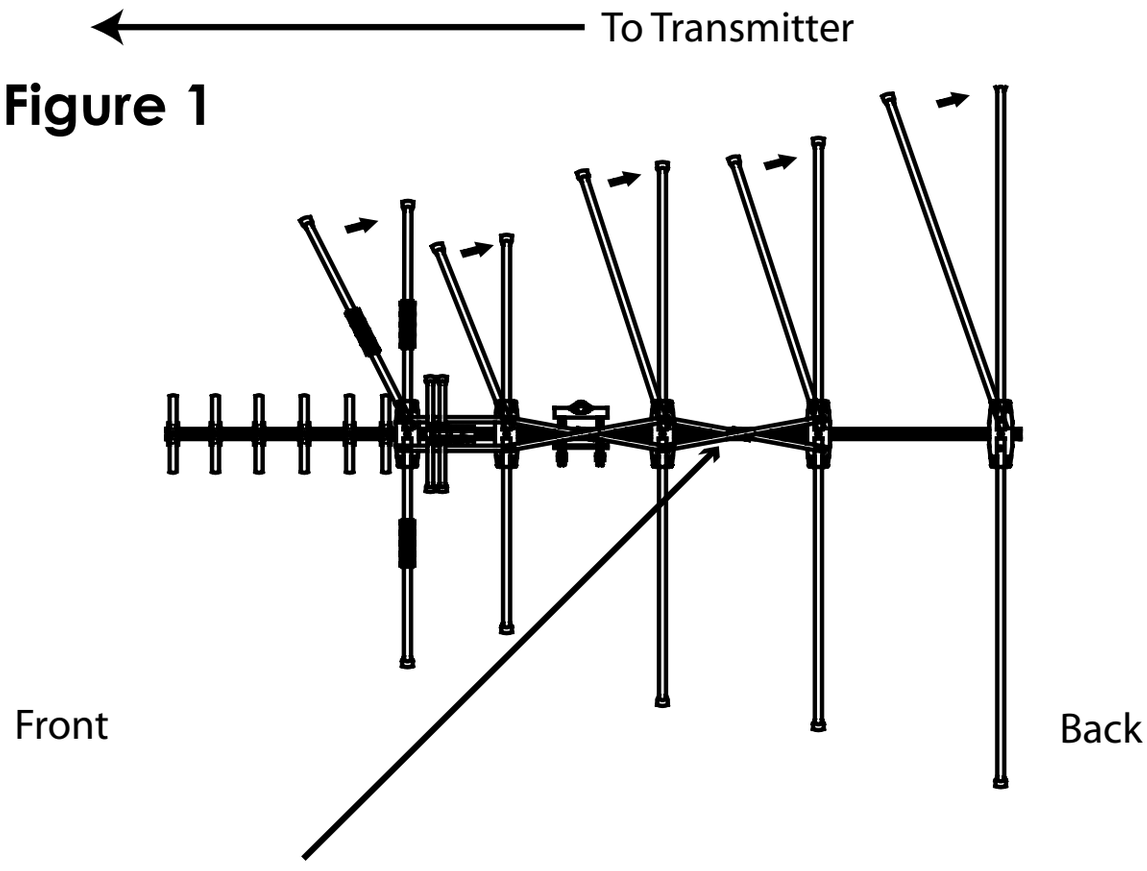


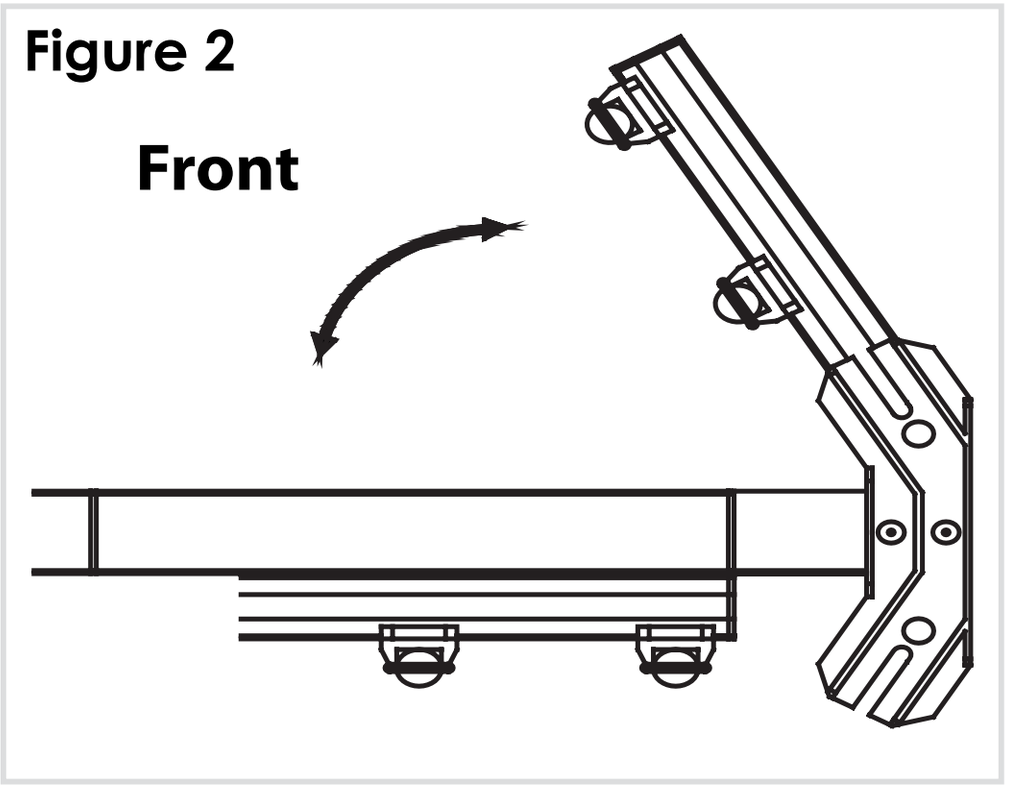
Figure 1

CM-5016 Note: Make sure plastic inulators are in place between the two phasing bars.

1.2 Rotate bottom elements until they click into place (CM-5016 Only).

2.1 Lock reflector elements by raising and locking in place. See **Fig. 2.1**

Figure 2

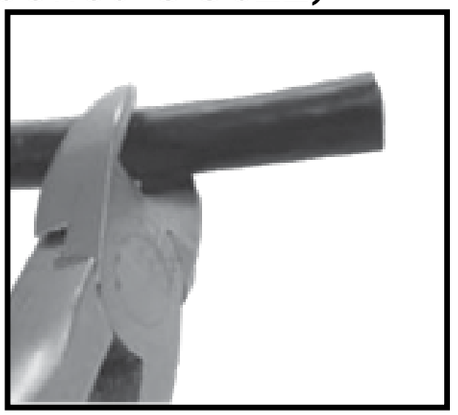


2.2 When the antenna is assembled, you can now prepare the down lead cable for connection

3.1 Slide rubber boot down cable and fit F-Type connector to end of cable as follows:

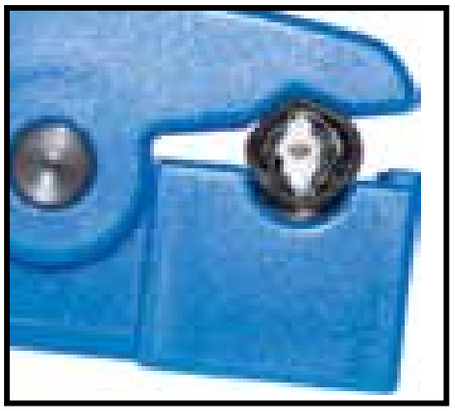
a) Cut the end of the cable off square with a set of sharp cutters. See **Fig. 3a.** Tool (PCT Series CCS22)

Figure 3a



b) Open jaws of Cable Stripper. Insert the coax cable through the hole until it is flush with the lip. See **Fig. 3b** - Tool (PCT Series 8120MT)

Figure 3b

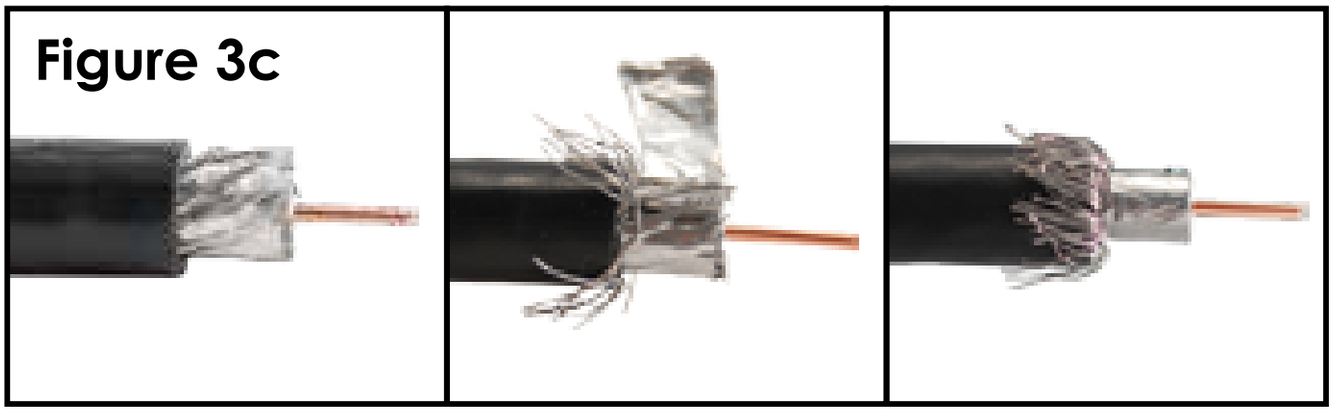


c) Twist the stripper several turns clockwise, until the "crunching" stops.

d) Remove the coax from the stripping tool.

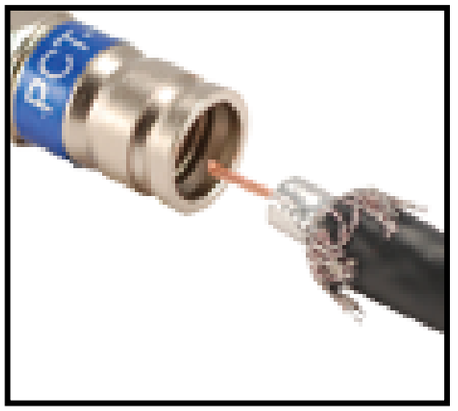
e) Using a pair of pliers, remove the stripped material, until you are left with a bare copper center and leaving exposed only one layer of foil. There should be about .25 inches (6mm) of copper & .25 inches (6mm) of Insulation with foil exposed. See **Fig. 3c.**

Figure 3c



f) Push the end of the cable into an F connector until the white insulator is flush with the bottom of the connector. See **Fig. 3d.**

Figure 3d



g) Insert the connector with cable into the compression tool. See **Fig. 3e** - Tool (PCT-ECN-CT)

Figure 3e

h) Compress the connector by closing the handle.. Remove the coax and connector from the compression tool. See **Fig. 3f** - Connector (PCT-TRS-6)

Figure 3f

Figure 3f

4.1 Screw F Type connector to Balun Housing finger tight. Slide rubber boot over F connector into balun housing. See **Fig. 4.**

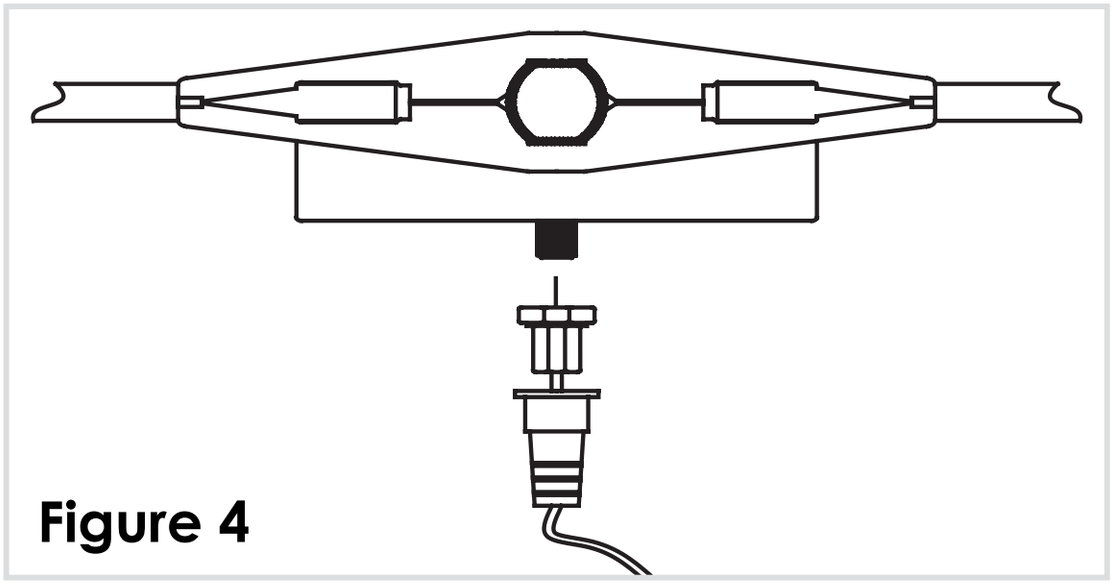


Figure 4

5.1 Attach the antenna to your chosen mast and then point it facing to the direction of your local transmitter. You may need to rotate or raise the antenna up the mast until you achieve the best results. See **Fig. 5.**

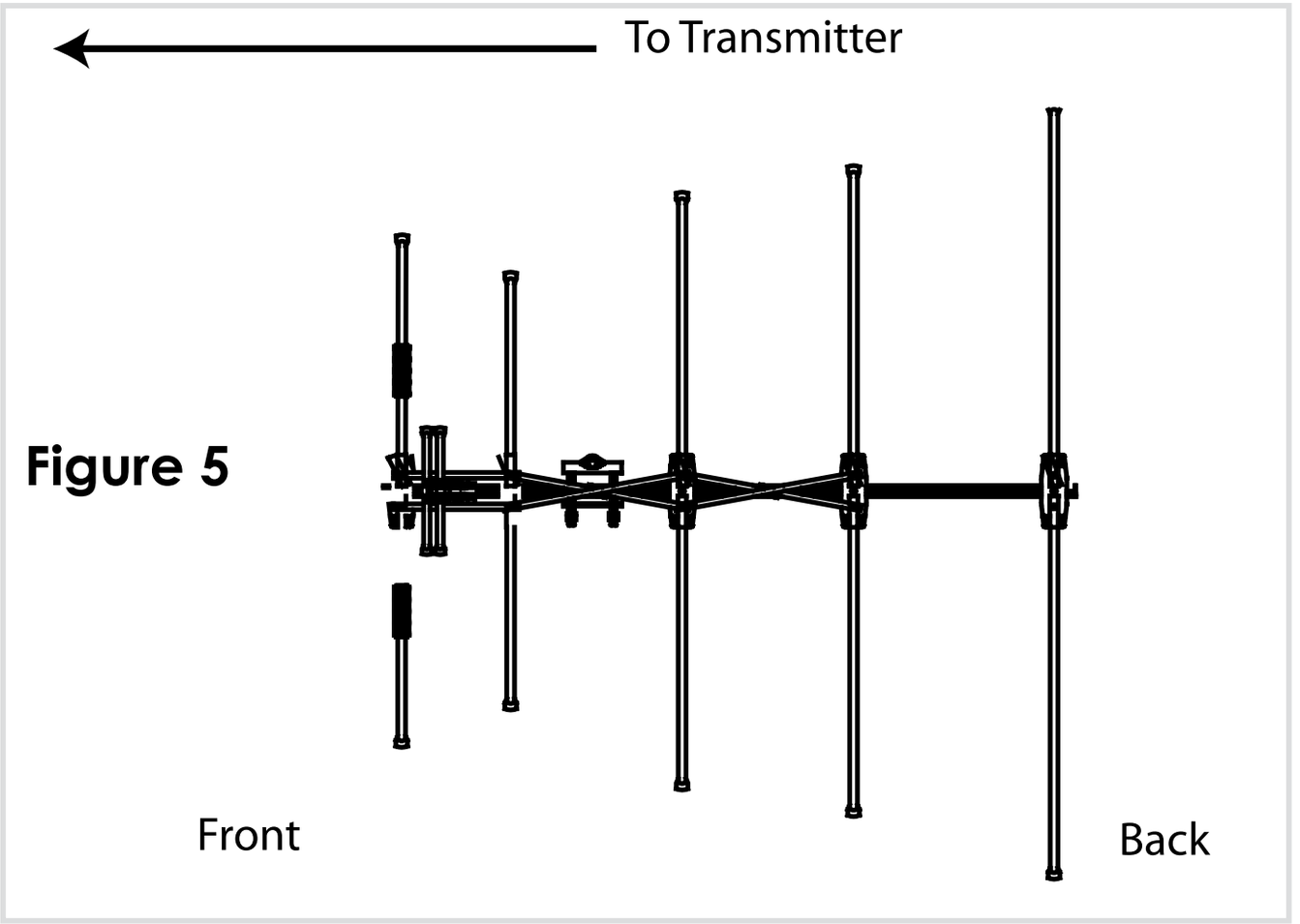


Figure 5

5.2 Make certain cable is attached to mast by using UV PVC Tape or UV cable ties. This will prevent damage to the cable caused by strong wind conditions.

⚠ **Caution:**

Do not over tighten F Connector as damage may result to circuit board of Balun

Features and Benefits for CM-5016:

- **Reduce time in assembly and easier to install**
- **Heavy duty construction on ALL parts**
- **Crimped ends on all elements - no water ingress or plastic caps to fall off thus no whistling**
- **Encapsulated F Type Wing Balun**
- **Professional powder coat finish, durability, long lasting Black UV Stabilized plastics**
- **.5 Inch (12mm) Extruded elements**
- **No sharp edges on UHF elements, no folded aluminium pieces which can collect water**
- **Stronger than competitors, ease of assembly**
- **No U bolts to attach**

Features and Benefits for CM-5018 & CM-5020:

- **Snap out Reflectors and elements**
- **Reduce time in assembly and easier to install**
- **Heavy duty construction on ALL parts,**
- **Crimped ends on all elements - no water ingress or plastic caps to fall off thus no whistling**
- **PCB F Type Balun**
- **Professional powder coat finish, durability, long lasting Black UV Stabilized plastics**
- **.5 Inch (12mm) Extruded elements**
- **No sharp edges on UHF elements, no folded aluminium pieces which can collect water**
- **Stronger than competitors, ease of assembly**
- **No U bolts to attach**

Product Return Policy and Warranty

In Warranty / Out of Warranty / Credit Procedure Effective Immediately

Warranty Period:

90-day warranty applies to all Channel Master Products*
Dealers & Consumers: Dealers and consumers can return any In-Warranty Channel Master product to the Warranty department for repair or replacement. For In-Warranty service the consumer or dealer must call Technical Service and request an RMA number in order to return the product. The returned product must have the RMA number visible on the box and must include the bill of sale showing the unit is within the warranty period. If the unit is found to be defective under our Warranty Policy Channel Master will repair or replace the item at no charge. Products outside of the warranty period should not be returned to Channel Master with the exception of any product requested by Technical Support to be accessed for quality assurance purposes. Technical Service Phone: +1.877.746.7261 * Some products have extended term warranty periods.
WARRANTY: Effective Immediately

GENERAL TERMS:

1.1 Subject to the provisions of this Warranty, CHANNEL MASTER warrants that the equipment and software described in Paragraph **1.2** will conform to our specifications in all material respect and that the equipment will be free from material defects in materials and

workmanship during the Limited Warranty period. **1.2** This Warranty applies to all original purchases by Customers of CHANNEL MASTER ("Equipment").The warranties set forth herein are not transferable. **1.3** The Effective period of this Warranty will start on the date of purchase of the Equipment or the date of installation by a CHANNEL MASTER approved technician and will end, for the Equipment, ninety (90) days later (for all component parts and system upgrades), unless otherwise expressed or provided herein (in each case the "Warranty Period").

RETURN OF EQUIPMENT UNDER WARRANTY:

2.1 If an item of Equipment malfunctions or fails in normal use within the applicable Warranty Period: **(a)** the Customer shall notify CHANNEL MASTER within thirty (30) days of the problem. **(b)** CHANNEL MASTER will, at its option, either resolve the problem over the telephone or provide the customer with a Return Authorization ("RMA") Number and the address to which the customer may ship the defective item; **(c)** If the problem can not be resolved over the telephone, the Customer shall attach a label showing the RMA number to each returned item, and include a description of the problem. The Customer shall, at his or her own cost, properly pack the item to be returned, mark the RMA# on the outside of the box, prepay the insurance and shipping charges, and ship the item to the specified CHANNEL MASTER location. **(d)** Unauthorized return of any equipment, whether in or out of warranty, will be subject to a handling charge, in addition to all repair and all transportation charges. **(e)** CHANNEL MASTER will, at its sole option, repair or replace the returned item. If replaced, the replacement item may be new or refurbished; if refurbished it will be equivalent in operation to

new Equipment. If a returned item is replaced by CHANNEL MASTER, the Customer agrees that the returned item will become the property of CHANNEL MASTER. **(f)** CHANNEL MASTER will complete the exchange of CHANNEL MASTER manufactured equipment returned under this Warranty within a reasonable time, subject to lead-times from factory, and will make a good faith effort to minimize any and all delays where possible; and **(g)** CHANNEL MASTER will, at its cost, ship the repaired item or replacement to the Customer. If the Customer requests express shipping, the Customer will pay CHANNEL MASTER an expediting fee. **2.2** Equipment which is repaired or replaced by CHANNEL MASTER under this Warranty will be covered under all of the provisions of this Warranty for the remainder of the applicable Warranty period (for that particular equipment) from the date of repair or replacement, whichever is longer. **2.3** If equipment is repaired beyond effective warranty dates or if abnormal usage had occurred, Customer shall be charged applicable rates and the Customer will be advised of the estimated charges prior to repair by CHANNEL MASTER's authorized service center. **2.4** The price of out-of-warranty repairs payable by the Customer will be based on standard labor and parts prices in effect at the time of the repair. CHANNEL MASTER will use its best efforts to ensure that the cost of such repair, exchange, refurbishing, or substitution will not exceed the original price of Product. **2.5** If the problem reoccurs within the warranty period, CHANNEL MASTER will, at its option: **(1)** re-perform the service; **(2)** replace the product pursuant to the terms of this warranty, **(3)** permit Customer to return the product and issue a refund pursuant to this warrant, or **(4)** refund the amount the Customer paid for the services.

PRODUCT MODIFICATION:

4.1 CHANNEL MASTER reserves the right to make changes or improvements to its products, during subsequent production, without incurring the obligation to install such changes or improvements on previously manufactured or sold products. FORCE MAJEURE:

5.1 CHANNEL MASTER will not be liable if its performance under this warranty becomes commercially impracticable due to any contingency beyond CHANNEL MASTER's reasonable control, including acts of God, fires, flood, wars, sabotage, civil unrest, accidents, labor disputes or shortages, government laws, rules and regulations, whether valid or invalid, inability to obtain material, equipment or transportation, incorrect, delayed or incomplete specifications, drawings or data supplied by Customer (collectively "Force Majeure")

LIMITATIONS AND QUALIFICATIONS OF WARRANTY:

6.1 This Limited Warranty extends only to the original purchaser of the Equipment and is in lieu of all other express or implied warranties, including those of merchantability and fitness for a particular purpose. This Warranty does not apply to any damage, defect of failure caused by: **(a)** any part of the equipment having been modified, adapted, repaired, maintained, transported or relocated by any person; **(b)** Storage or environmental characteristics which do not conform to the applicable sections of the appropriate Equipment Manual or Instruction Sheet; **(c)** Failure to conform with the Equipment Operating Instructions in the applicable Equipment Manual or Instruction Sheet; **(d)** External causes, including external

electrical stress or lightning, or use in conjunction with incompatible equipment, unless such use was with CHANNEL MASTER's prior written request; **(e)** Cosmetic damage; **(f)** Accidental damage, negligence, modification, mishandling, abuse or misuse; or **(g)** Force Majeure.

LIMITATION ON DAMAGES:

7.1 THIS WARRANTY IS THE CUSTOMER'S EXCLUSIVE WARRANTY FOR THE EQUIPMENT, CHANNEL MASTER SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND OF MERCHANTABILITY. **7.2** CHANNEL MASTER WILL NOT BE LIABLE IN TORT, INCLUDING LIABILITY IN NEGLIGENCE OR STRICT LIABILITY, AND WILL HAVE NO LIABILITY AT ALL FOR INJURY TO PERSONS OR PROPERTY. CHANNEL MASTER'S LIABILITY FOR FAILURE TO FULFILL ITS OBLIGATIONS UNDER THIS WARRANTY OR ANY OTHER LIABILITY UNDER OR IN CONNECTION WITH THE EQUIPMENT WILL BE LIMITED TO THE AMOUNT OF THE PURCHASE PRICE OF THE EQUIPMENT AT THE TIME OF ORIGINAL PURCHASE. THE REMEDIES STATED IN THIS WARRANTY ARE THE CUSTOMER'S EXCLUSIVE REMEDIES AGAINST CHANNEL MASTER REGARDING THE EQUIPMENT. **7.3** EVEN IF CHANNEL MASTER HAS BEEN NOTIFIED OF THE POSSIBILITY OF THEM, CHANNEL MASTER WILL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS AND REVENUES, FAILURE TO REALIZE EXPECTED SAVINGS, ANY CLAIM AGAINST A CUSTOMER BY A THIRD PARTY, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSSES OF ANY KIND. **7.4** THESE LIMITATIONS AND DISCLAIMERS ARE NOT MADE BY CHANNEL MASTER WHERE PROHIBITED BY LAW.

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www.channelmaster.com
Tel +1.877.746.7261